WHAT IS CLAIMED IS:

1. A resist composition comprising at least one resist compound satisfying all the following requirements a) to f):

a) containing at least one acid-dissociating functional group in molecule thereof,

b) containing at least one kind of functional group selected from the group consisting of urea group, urethane group, amido group and imido group in a molecule thereof,

c) having a molecular weight of 500 to 5,000,

d) having a branched structure,

e) satisfying the formula: $3 \leq F \leq 5$, wherein F is represented by (number of total atoms)/(number of total carbon atoms – number of total oxygen atoms), and

f) having a nitrogen content of 1 to 20% by mass; and

at least one acid or base generator capable of directly or indirectly generating an acid or a base by exposure to radiation selected from the group consisting of visible lights, ultraviolet rays, excimer lasers, electron beams, X-rays and ion beams.

2. The resist composition according to claim 1, wherein the branched structure is a chemical structure satisfying at least one of the following requirements (1) to (4):

(1) having a tertiary carbon atom or a tertiary nitrogen atom which is not included in a cyclic structure;

(2) having a quaternary carbon atom;

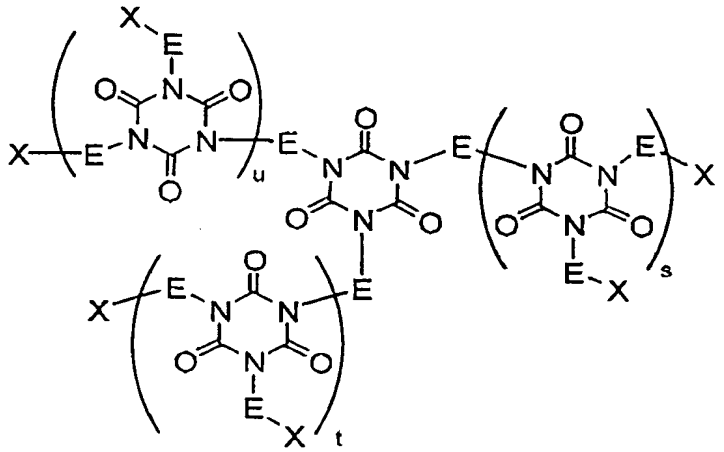
(3) having at least one aromatic ring or aliphatic ring having three or more substituent groups; and

(4) having a tertiary phosphorus atom.

3. The resist composition according to claim 1, wherein the resist compound satisfying all the requirements a) to e) has at least one acid-

dissociating functional group in each of branched molecular chains thereof, the branched molecular chains each having at least one functional group selected from the group consisting of urea group, urethane group, amido group and imido group.

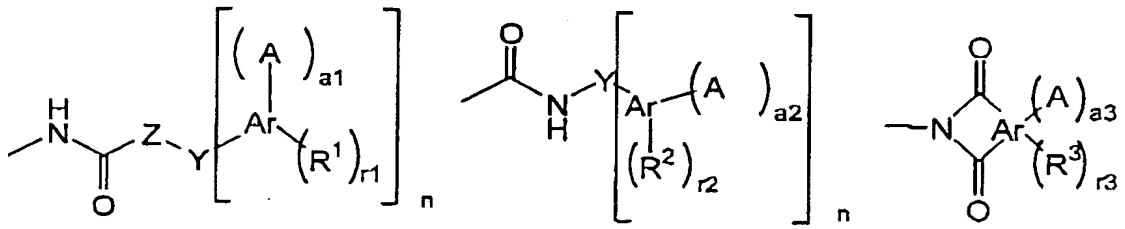
4. The resist composition according to claim 1, wherein the resist compound is represented by the formula (1):



(1)

wherein groups X are each independently hydrogen or a group represented by the following formulae (I) to (III); Groups E are each independently C_1 to C_{12} divalent acyclic hydrocarbon group, divalent cyclic hydrocarbon group or substituted alkylene group; and s, t and u are each independently integer of 0 to 3, with the proviso that at least three of the groups X are represented by the formulae (I) to (III),

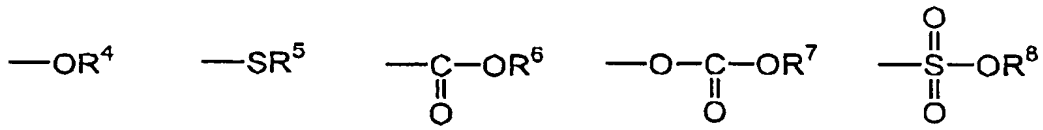
the formulae (I) to (III) being



(I) (II) (III)

wherein R^1 to R^3 are each independently hydrogen or a substituent group selected from the group consisting of C_1 to C_{12} linear hydrocarbon group, cyclic hydrocarbon group, alkoxy group and 1-branched alkyl group;

groups A are each independently hydrogen or a group represented by the formulae (IV) to (VIII):



(IV) (V) (VI) (VII) (VIII)

wherein R^6 and R^8 are each independently hydrogen or a substituent group selected from the group consisting of C_1 to C_{12} linear hydrocarbon group, cyclic hydrocarbon group, alkoxy group and 1-branched alkyl group, R^4, R^5 and R^7 are each independently hydrogen or a substituent group selected from the group consisting of substituted methyl groups, 1-substituted ethyl groups, 1-substituted n-propyl groups, 1-branched alkyl groups, silyl groups, germyl groups, acyl groups, alkoxycarbonyl groups, 1-substituted alkoxymethyl groups and cyclic groups, and at least one of R^4 to R^8 is a characteristic group other than hydrogen, with the proviso that at least one of the groups A is represented by the formulae (IV) to (VIII);

groups Ar are each independently C_6 to C_{12} aromatic hydrocarbon group;

Y is independently C_1 to C_{12} divalent acyclic hydrocarbon group, divalent cyclic hydrocarbon group, substituted alkylene group or single bond;

Z is independently single bond or substituent group selected from the group consisting of –O–, –S– and –NH–;

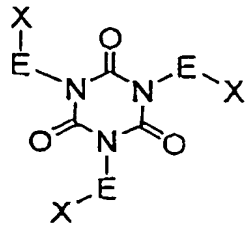
a1 to a3 are each independently integer of 1 to 9, and r1 to r3 are each independently integer of 0 to 8, satisfying the formulae: $a1 + r1 \leq 9$, $a2 + r2 \leq 9$ and $a3 + r3 \leq 8$; and

n is integer of 1 to 5.

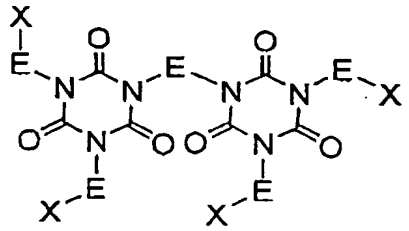
5. The resist composition according to claim 1, wherein the resist compound has a molecular weight of 600 to 3,000 and a nitrogen content of 2 to 15% by mass.

6. The resist composition according to claim 1, wherein the resist

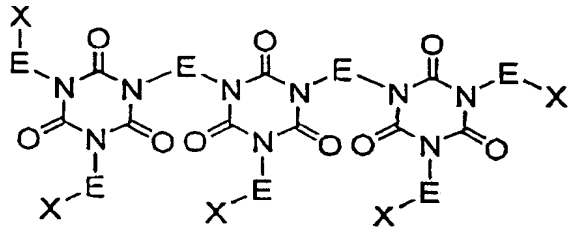
compound is represented by the formulae (2) to (4):



(2)



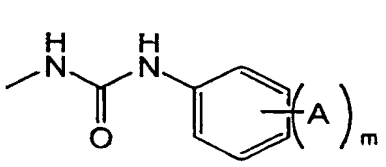
(3)



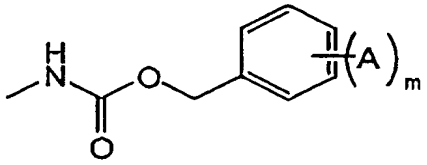
(4)

wherein groups X and groups E are the same as defined in claim 4.

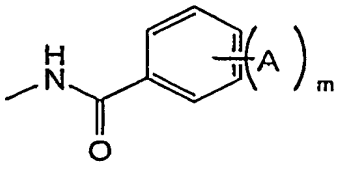
7. The resist composition according to claim 1, wherein the groups X in the formulae (1) to (4) are represented by the formulae (IX) to (XI):



(IX)



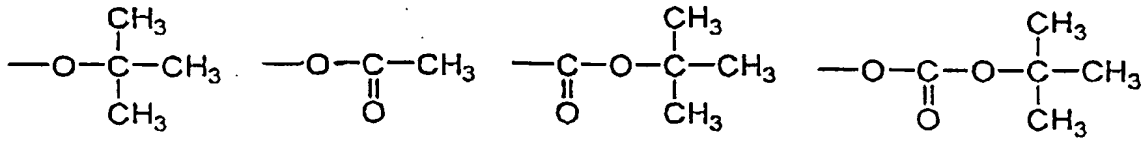
(X)



(XI)

wherein groups A are the same as defined in claim 4 and m is 1 or 2.

8. The resist composition according to claim 4, wherein at least one of the groups A in the formulae (I) to (III) and (IX) to (XI) is represented by the formulae (XII) to (XV):



(XII) (XIII) (XIV) (XV)

9. The resist composition according to claim 1, wherein the resist compound is produced from at least one polyisocyanate compound having three or more isocyanate groups.

10. The resist composition according to claim 9, wherein the polyisocyanate compound is at least one compound selected from the group consisting of isocyanurates, biuret derivatives, allophanate derivatives, urethane derivatives, oligomers of isocyanatophenylmethane and triisocyanates,

the isocyanurates, biuret derivatives, allophanate derivatives and urethane derivatives being derived from at least one diisocyanate compound selected from the group consisting of tolylene diisocyanate, bis(isocyanatophenyl)methane, bis(isocyanatocyclohexyl)methane, phenylene diisocyanate, cyclohexane diisocyanate, isophorone diisocyanate, hexamethylene diisocyanate, bis(isocyanatomethyl)cyclohexane, m-xylene diisocyanate, norbornane diisocyanate, tolidine diisocyanate, naphthalene diisocyanate, lysine diisocyanate, tetramethylxylene diisocyanate and trimethylhexamethylene diisocyanate, and

the triisocyanate being selected from the group consisting of tris(isocyanatophenyl)methane, tris(isocyanatophenyl) thiophosphate, mesitylene triisocyanate, triisocyanatobenzene, lysine ester triisocyanate, 1,6,11-undecane triisocyanate, 1,8-diisocyanato-4-isocyanatomethyloctane, 1,3,6-hexamethylene triisocyanate and bicycloheptane triisocyanate.

11. The resist composition according to claim 1, wherein the composition contains two or more kinds of the resist compounds.

12. The resist composition according to claim 4, wherein a part of the

resist compounds is a resist compound wherein all of R^4 to R^8 in the formulae (IV) to (VIII) are hydrogen.

13. The resist composition according to claim 1, further comprising a resin that is insoluble or hardly soluble in an aqueous alkali solution, but is rendered soluble therein by an action of an acid.

14. A resist substrate comprising a substrate and a resist film formed on the substrate which is made of the resist composition as defined in claim 1.

15. A patterned resist substrate produced by patterning the resist film as defined in claim 14.

16. A process for forming resist patterns, comprising the steps of:

forming a resist film on a substrate by applying the resist composition as defined in claim 1 to the substrate;

heat-treating the resist film;

exposing the heat-treated resist film by irradiating it with radiation selected from the group consisting of visible lights, ultraviolet rays, excimer lasers, electron beams, X-rays and ion beams, optionally followed by a heat-treatment of the exposed resist film; and

developing the exposed resist film with a developing solution.

17. A process for producing a patterned wiring board, comprising the steps of as defined in claim 16 and a subsequent step of etching.

18. A patterned wiring board produced by the process as defined in claim 17.